

CLAIMS

What is claimed is:

1. A tractor-trailer slider comprising:

spaced apart longitudinal side rails including control arm supports extending downwardly from the longitudinal side rails, the longitudinal side rails having generally parallel portions and the control arm supports having sides;

at least one lateral cross-member interconnecting the longitudinal side rails; and

at least one air spring support member providing a pair of spaced apart air spring mounting pads, the air spring support member secured to each of the sides of the control arm supports, the generally parallel portions of the longitudinal side rails, and the lateral cross-member.

2. The tractor-trailer slider according to claim 1, wherein the longitudinal side rails have forward and rearward portions and the control arm supports have forward and rearward sides, and the at least one lateral cross-member comprising forward and rearward lateral cross-members interconnecting the longitudinal side rails, and the at least one air spring support member comprising forward and rearward air spring support members, the forward and rearward air spring support members each providing a pair of spaced apart air spring mounting pads, the forward and rearward air spring support members each respectively secured to the forward and rearward sides of the control arm

supports, the forward and rearward portions of the longitudinal side rails, and a respective one of the forward and rearward lateral cross-members.

3. The tractor-trailer slider according to claim 2, wherein an intersection of the forward and rearward portions of the longitudinal side rails and the forward and rearward sides of the control arm supports form curved edges, the forward and rearward air spring support members extending generally horizontally from the forward and rearward portions of the longitudinal side rails downwardly to the forward and rearward sides of the control arm supports with the air spring supports secured to the curved edges.

4. The tractor-trailer slider according to claim 3, wherein each longitudinal side rail and each control arm support includes spaced apart walls, the spaced apart walls providing the curved edges.

5. The tractor-trailer slider according to claim 4, wherein the control arm supports include a control arm attachment point, the air spring support members having an access opening proximate to the control arm attachment point providing access to a space between the spaced apart walls near the control arm attachment point.

6. The tractor-trailer slider according to claim 5, wherein the air spring support members bridge the spaced apart walls on opposing sides of the opening.

7. The tractor-trailer slider according to claim 2, wherein a control arm support stiffening bracket is arranged adjacent to each of the control arm supports and extending between the forward and rearward air spring support members, the control arm support stiffening bracket secured to the control arm supports and the air spring support members.

8. The tractor-trailer slider according to claim 7, wherein fasteners extend through said control arm support stiffening brackets and the control arm supports at a control arm attachment point.

9. The tractor-trailer slider according to claim 1, wherein the lateral cross-member is an inverted U-shaped member having spaced apart lateral walls providing a downwardly facing opening, the air spring support member bridging the spaced apart lateral walls and secured to at least one of the spaced apart lateral walls, providing a box-shaped structure with the lateral cross-member.

10. The tractor-trailer slider according to claim 9, wherein a linkage of a pin locking system is arranged within the downwardly facing opening of the lateral cross-member and bounded by the lateral walls of the lateral cross member and the air spring support member.

11. The tractor-trailer slider according to claim 1, wherein the air spring support member includes a laterally extending edge arranged transverse to an adjacent surface of the air spring support member, providing a reinforcing flange stiffening the adjacent surface.

12. A tractor-trailer slider comprising:

spaced apart longitudinal side rails with at least one of the longitudinal side rails including a first locating feature; and

a lateral cross-member interconnecting the longitudinal side rails, the lateral cross-member including a second locating feature interlocking with the first locating feature, one of the locating features being a notch and the other of the locating features being a protrusion received within the notch.

13. The tractor-trailer slider according to claim 12, further comprising control arm supports extending downwardly from the longitudinal side rails, and an air spring support member providing a pair of spaced apart air spring mounting pads, the air spring support member secured to the control arm supports, the longitudinal side rails, and the lateral cross-member.

14. The tractor-trailer slider according to claim 12, wherein the notch is an elongated slot in a surface of the at least one of the longitudinal side rails and the protrusion is a tab extending from a wall of the lateral cross-member.

15. The tractor-trailer slider according to claim 14, wherein each of the longitudinal side rails include an elongated slot, and the lateral cross member includes opposing ends with each of the ends including a tab extending through the elongated slot of each of the longitudinal side rails, and comprising a weld bead securing the tab to the longitudinal side rail in the area of the elongated slot.

16. The tractor-trailer slider according to claim 15, wherein each end of the lateral cross member includes a short tab and a long tab, the longitudinal side rails including opposing first and second walls with the first wall including first and second elongated slots with the short and long tabs respectively extending through the first and second elongated slots, and the second wall including a third slot with the long tab extending from the second elongated slot to the third elongated slot.

17. The tractor-trailer slider according to claim 12, wherein the lateral cross-member substantially encloses a linkage of a pin locking system.

18. A tractor-trailer slider comprising:

spaced apart longitudinal side rails each including control arm supports extending downwardly from the longitudinal side rails, each of the longitudinal side rails including an upper longitudinal wall and a pair of spaced apart longitudinal side walls, each of the control arm supports including an inner and outer wall;

a unitary first plate providing one of the inner and outer walls, one of the longitudinal side walls and the upper longitudinal wall of each longitudinal side rail and control arm support; and

a lateral cross-member interconnecting the longitudinal side rails.

19. The tractor-trailer slider according to claim 18, comprising an air spring support member providing a pair of spaced apart air spring mounting pads, the air spring support member secured to edges of the control arm supports, the longitudinal side walls, and the lateral cross-member.

20. The tractor-trailer slider according to claim 18, wherein a unitary second plate is secured to the first plate by a weld bead, the second plate providing the other of the inner and outer walls and the longitudinal side walls.

21. The tractor-trailer slider according to claim 18, wherein upper and lower bushings are arranged between the inner and outer walls respectively providing upper and lower control arm attachment points.

22. The tractor-trailer slider according to claim 21, comprising a reinforcement bracket arranged adjacent to an outer surface of the inner wall with a fastener extending through one of the bushings securing the reinforcement bracket to the control arm support.

23. The tractor-trailer slider according to claim 18, wherein one of the inner and outer walls include a lightening hole having an edge arranged transverse to an adjacent surface of the one of the walls providing a reinforcing flange stiffening the adjacent surface.

24. The tractor-trailer slider according to claim 18, wherein one of the inner and outer walls provides upper and lower control arm attachment points, the one of the walls includes a deformed area arranged proximate to one of the upper and lower control arm attachment points providing a coined surface spaced from an adjacent surface from the coined surface.

25. The tractor-trailer slider according to claim 18, wherein a rear reinforcing bracket is secured to each of the longitudinal side rails at a rearward portion of the longitudinal side rails.